IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants	:	Van Vleet et al.	Conf. No.: 3210
Appl. No.	:	10/612,395	
Filed	:	July 2, 2003	
For	:	Server Architecture and Methods for Persistently Storing and Serving Event Data	
Examiner	:	Barbara Burgess	

SECOND APPEAL BRIEF

United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Appellants, Applicants in the above-captioned patent application, appeal the final rejection of Claims 1-13 and 46-66 set forth in the Final Office Action issued on June 2, 2008 (hereinafter "the Final Office Action").

I. REAL PARTY IN INTEREST

The real party in interest in the present application is A9.com, Inc., the assignee of the present application.

II. RELATED PROCEEDINGS

No related appeals, interferences, or court proceedings are currently pending.

III. STATUS OF CLAIMS

Claims 1-13 and 46-66 are currently pending in the application and are the subject of this appeal. Claims 14-45 are canceled. The pending claims are listed as an appendix.

IV. STATUS OF AMENDMENTS

No amendments have been made in response to the Final Office Action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present application includes two independent claims. Each independent claim is summarized below, with citations to corresponding portions of the specification and drawings as required by 37 C.F.R. § 41.37(c)(1)(v). These citations illustrate specific examples and embodiments of the recited claim language, and do not limit the claims.

<u>Claim 1</u>

Claim 1 is directed to a web site system (30), comprising:

- a web server system (39) that is responsive to requests from online users by generating and returning web pages, wherein the web server system (39) includes one or more applications (38) that generate personalized content for recognized users based on browse histories of such users (see, e.g., Fig. 1; ¶ 0022 on page 5; and page 7, last 3 lines of ¶ 26); and

- an event history server (32) that persistently stores event data descriptive of events that occur during browsing sessions of each of a plurality of users of the web server system (39), wherein the event history server (32) stores the event data substantially as corresponding events are reported to the event history server by the web server system (39), and makes such event data available in real time to the one or more applications (38) to facilitate personalization of web pages for the users (see, e.g., Fig. 1; ¶ 0005 on page 2; ¶ 0008 on page 3; ¶ 0021 beginning on page 4; ¶ 0023 beginning on page 5; and ¶¶ 0035-0040 beginning on page 9);

- wherein the event history server (32) implements a query interface through which the one or more applications (38) retrieve the event data associated with particular users at least by event type and event time of occurrence, and the event history server is capable of responding to a query submitted by an application via said query interface by identifying particular events that match event criteria included in said query, and by returning the event data for said particular events (see, e.g., ¶ 0006 on page 2; ¶ 0009 on page 5; last 5

lines of ¶ 0024 on page 6; ¶ 0026 beginning on page 6; page 10, ¶ 0040, first 6 lines; ¶¶ 0041-0043 on page 11; and ¶¶ 0048-0049 on page 13);

- and wherein the web server system (39) uses the event data retrieved by the one or more applications (38) via said query interface to generate personalized web pages for transmission to users (see, e.g., ¶ 0005 on page 2; ¶ 0009 on page 5; ¶ 0026 beginning on page 6; and page 10, ¶ 0040, first 6 lines).

Claim 55

Claim 55 is directed to a method performed by a web site system (30). The web site system includes a web server system (39) that is responsive to requests from users by generating and returning web pages, said web server system (39) including one or more applications (38) that generate personalized content for recognized users based on browse histories of such users. The method comprises at least the following:

- reporting event data from the web server system (39) to an event history server (32), said event data descriptive of events that occur during browsing sessions of each of a plurality of users of the web server system (see, e.g., Fig. 1; ¶ 0005 on page 2; and ¶ 0008 on page 3);

- storing the event data on the event history server (32) substantially as the corresponding events are reported to the event history server by the web server system, and making such event data available in real time to the one or more applications to facilitate personalization of web pages for the users (see, e.g., ¶ 0005 on page 2; ¶¶ 0008 and 0009 on page 3; and ¶¶ 0021-0023 beginning on page 4);

- with the one or more applications (38), retrieving, from the event history server (32), the event data associated with particular users, wherein the one or more applications (38) retrieve the event data at least by event type and event time of occurrence via a query interface of the event history server, wherein the event history server responds to a query submitted by an application via said query interface by identifying particular events that match event criteria included in said query, and by returning the event data for said particular events (see, e.g., ¶ 0006 on page 2; ¶¶ 0026-0027 beginning on page 6; and ¶ 0049 on page 13);

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- with the web server system (39), using the event data retrieved by the one or more applications (38) via said query interface to generate personalized web pages for transmission to users (see, e.g., ¶ 0005 on page 2; ¶ 0009 on page 3; ¶ 0022 on page 5; ¶ 0027 on page 7; Fig. 3; ¶ 0056 on page 15; and ¶ 0081 on page 22).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The sole ground for rejection to be reviewed on appeal is the rejection of Claims 1-13 and 46-66 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Linden (U.S. Pub. 2002/012882) in view of Marshall (U.S. Pub. 2006/0004607).

VII. ARGUMENT

Claims 1-13 and 46-66 (all of the pending claims) stand rejected under 35 U.S.C. § 103(a) over Linden in view of Marshall. Claims 1 and 55 are independent. For the reasons explained below, Appellants respectfully submit that the Final Office Action does not establish a prima facie showing of obviousness, and request that the rejection be reversed.

<u>Claim 1</u>

Claim 1 reads as follows:

1.   A web site system, comprising:

a web server system that is responsive to requests from online users by generating and returning web pages, wherein the web server system includes one or more applications that generate personalized content for recognized users based on browse histories of such users; and

an event history server that persistently stores event data descriptive of events that occur during browsing sessions of each of a plurality of users of the web server system, wherein the event history server stores the event data substantially as corresponding events are reported to the event history server by the web server system, and makes such event data available in real time to the one or more applications to facilitate personalization of web pages for the users;

wherein the event history server implements a query interface through which the one or more applications retrieve the event data associated with particular users at least by event type and event time of occurrence, and the event history server is capable of responding to a query submitted by an application via said query interface by identifying particular events that match event criteria included in said query, and by returning the event data for said particular events;

and wherein the web server system uses the event data retrieved by the one
or more applications via said query interface to generate personalized web pages
for transmission to users.

The rejection of claim 1 is improper because, among other reasons, Linden and Marshall do not collectively teach or render obvious an "event history server" that, in the context of the other recitations of the claim, "implements a query interface through which the one or more applications retrieve the event data associated with particular users at least by event type and event time of occurrence."

The Final Office Action points to paragraphs 0105, 0123, 0127, 0138 and 0139 of Linden in connection with this aspect of claim 1. Final Office Action at page 3, second full paragraph. The referenced portions of Linden describe processes in which the purchase histories of customers (paragraph 0105), or the query log records of customers (paragraphs 0123, 0127, 0138 and 0139), are retrieved for off-line analysis. The purpose of this analysis is to detect purchase-based or item-viewing-based relationships or "similarities" between particular items. Each retrieved purchase history is "in the general form of the user ID of a customer together with a list of the product IDs (ISBNs, etc.) of the items (books, CDs, videos, etc.) purchased by that customer." Linden at ¶ 0105. Each retrieved query log record is "in the general form of a browsing session identification together with a list of the identifiers of the items viewed in that browsing session." Linden at ¶ 0127.

Nowhere does Linden suggest that the referenced retrieval of customer purchase histories or query log records involves the use of a "query interface through which the one or more applications retrieve the event data associated with particular users at least by event type and event time of occurrence" as claimed. In this regard, the referenced portions of Linden merely disclose the retrieval of entire purchase histories, and entire query log records, of the customers. Thus, although the retrieved purchase histories and query log records may include event data, nothing in Linden suggests that this event data is retrieved via "a query interface... at least by event type and event time of occurrence" as claimed. Indeed, Linden never suggests that the event data is stored in a format that would even permit such a mode of retrieval.

The rejection of claim 1 is also improper for the independent reason that Linden and Marshall do not collectively teach or render obvious an event history server that "is capable of responding to a query submitted by an application via said query interface by identifying particular events that match event criteria included in said query, and by returning the event data for said particular events." The Final Office Action acknowledges that this feature is missing from Linden, but asserts that the addition of this feature would have been obvious in view of the disclosure at paragraphs 0068, 0073 and 0074 of Marshall. Final Office Action at page 3, last line to page 5, line 7. Marshall, however, does not disclose or suggest an event history server that "is capable of responding to a query <u>submitted by an application</u> via said query interface by <u>identifying particular events that match event criteria included in said query</u>." In this regard, the "query" mentioned in paragraph 0068 of Marshall is a search query submitted by a user, and not a "query submitted by an application" as claimed. In addition, the user-submitted search query in Marshall is apparently a keyword search for information about a health condition, and its execution does not involve "identifying particular <u>events</u> that match <u>event criteria included in said query</u>" as claimed. Thus, the referenced portion of Marshall does not support the rejection.

The rejection of claim 1 is also improper because the Final Office Action does not identify any particular *reason* that would have prompted one of ordinary skill and creativity to modify the cited art to arrive at the claimed invention. See *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1731 (stating that "it can be important to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does.") In connection with this issue, the Final Office Action merely states that the addition of Marshall's query submission feature to Linden would have been obvious "in order that patient information can be retrieved." Final Office Action at page 4, lines 8-11. Linden, however, does not relate to the storage of patient information. In addition, nothing in the record suggests that Linden's system would benefit in any way from the ability to retrieve patient information. Thus, the Final Office Action does not identify a reason for combining Linden and Marshall.

In the Advisory Action dated September 17, 2008, the Examiner appears to treat the browsing sessions of Linden as the "events" described in claim 1. For example, the Advisory action treats the "current session" described in Linden as the "event type" of claim 1. Appellants respectfully submit that this construction is improper in view claim 1's recitation of "events that

occur during browsing sessions." This language makes clear that the recited events cannot be the browsing sessions themselves.

For at least these reasons, the Final Office Action does not establish a prima facie case of obviousness with respect to claim 1, and the rejection should be reversed.

Dependent claims 2-13, 46-54 and 64-66

Claims 2-13, 46-54 and 64-66 each depend directly or indirectly from claim 1. Thus, the rejections of these dependent claims are improper for the reasons explained above in connection with claim 1. Additional reasons for reversing the rejections of these dependent claims are set forth below for specific dependent claims. By declining to present separate arguments in favor of certain dependent claims, Appellants do not imply an agreement with the Examiner's assertions regarding such claims.

Dependent claim 2

The rejection of claim 2 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 2: "the event history server records the event data for a given event as an event object that includes at least the following: an event type identifier, an event value, and a time stamp, each event object being separately retrievable via said query interface.." The Final Office Action points to paragraph 0105 of Linden in connection with this feature. Final Office Action at page 4, second to last paragraph. Nothing in paragraph 0105 or any other portion of Linden, however, suggests that the event data for a given event is recorded as a separately retrieval event object as claimed.

Dependent claim 3

The rejection of claim 3 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 3: "the event history server includes at least one storage layer server that stores the event data persistently by user ID, and further includes at least one cache layer server that caches event data of online users." The Final Office Action points to paragraph 0086 of Linden in connection with this feature. Final Office Action at page 4, last paragraph. The cited paragraph, however, says nothing about how event data is stored. Indeed, neither the referenced paragraph nor any other portion of Linden teaches the claimed combination of at least one storage layer server and at least one cache layer server to store the event data.

Dependent claim 4

The rejection of claim 4, which depends from claim 3, is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 4: "the cache layer server is configured to collect event data of an unrecognized user during a browsing session, and to pass such collected event data to the at least one storage layer server for persistent storage thereof if the unrecognized user becomes recognized during the browsing session." The Final Office Action points to paragraph 0019 of Linden in connection with this feature. Final Office Action at page 5, first paragraph. Neither the cited paragraph nor any other portion of Linden, however, teaches or suggests the recited feature.

Dependent claim 5

The rejection of claim 5 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 5: "the event history server comprises a plurality of cache layer servers, each of which is assigned to a different respective set of browse session IDs such that a given user remains assigned to a particular cache layer server throughout a browse session." The Final Office Action points to paragraph 0056 of Linden in connection with this feature. Final Office Action at page 5, second paragraph. The referenced paragraph, however, does not teach "a plurality of cache layer servers," much less "a plurality of cache layer servers, each of which is assigned to a different respective set of browse session IDs such that a given user remains assigned to a particular cache layer server throughout a browse session." The Final Office Action does not acknowledge or address this deficiency.

Dependent claim 7

The rejection of claim 7 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 7: "the query interface of the event history server supports queries of the form 'has User X accessed URL Y?'" The Final Office Action points to paragraph 0138 of Linden in connection with this feature. Final Office Action at page 5, last paragraph. The referenced paragraph, however, does not disclose any particular form of query supported by a query interface, much less a query of the form "has User X accessed URL Y?"

Dependent claim 8

The rejection of claim 8 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 8: "the query interface of the event history server supports queries of the form 'when has User X accessed URL Y?'" The Final Office Action points to paragraph 0138 of Linden in connection with this feature. Final Office Action at page 6, first paragraph. The referenced paragraph, however, does not disclose any particular form of query supported by a query interface, much less a query of the form "when has User X accessed URL Y?"

Dependent claim 11

The rejection of claim 11 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 11: "the at least one application includes a web search application that provides functionality for searching an index of web pages, and uses the event history server to identify and highlight web search result items that have previously been accessed by a user conducting a current search." The Final Office Action points to paragraph 0016 of Linden in connection with this feature. Final Office Action at page 6, fourth paragraph. The referenced paragraph, however, does not disclose a "web search application," much less a web search application as described in the claim.

Dependent claim 12

The rejection of claim 12 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 12: "the at least one application includes an application that provides functionality for users to interactively view and organize their respective browse history data as recorded by the event history server." The Final Office Action points to paragraph 0065 of Linden in connection with this feature. Final Office Action at page 6, last paragraph. While the referenced paragraph may disclose the storage of user browse history data, it does not disclose or suggest "an application that provides functionality for users to interactively view and organize" such data as claimed.

Dependent claim 13

The rejection of claim 13 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 13: "the event history server generates user-specific Bloom filters reflective of event histories of specific users, and

uses the user-specific Bloom filters to respond to queries from the at least one application." The Final Office Action points to paragraph 0123 of Linden in connection with this feature. Final Office Action at page 7, first paragraph. The referenced paragraph, however, does not disclose a Bloom filter, much less an event history server that generates and uses Bloom filters as claimed.

Dependent claim 48

The rejection of claim 48 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 48: "the query interface includes functionality for the one or more applications to additionally retrieve the event data based on types of user-selectable display elements associated with the events." The Final Office Action points to paragraph 0093 of Linden in connection with this feature. Final Office Action at page 7, last paragraph. The referenced paragraph, however, does not describe a query interface, and does not disclose the retrieval of event data "based on types of user-selectable display elements associated with the events." The Final Office Action does not address these deficiencies.

Dependent claim 49

The rejection of claim 49 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 49: "the event history server stores separate event objects for each of a plurality of respective events that occur during a user's browsing session, each event object being a separately retrievable entity that is retrievable via the query interface." The Final Office Action points to paragraph 0123 of Linden in connection with this feature. Final Office Action at page 8, first paragraph. While the referenced paragraph may refer to event data reflective of browsing events, it says nothing to suggest that this event data is stored as "separate event objects for each of a plurality of respective events that occur during a user's browsing session," where each event object is "a separately retrievable entity that is retrievable via the query interface." Indeed, Linden never suggests this feature.

Dependent claim 54

The rejection of claim 54 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 54: "the event history server is capable of executing a query of the following form, where N, T and Y are variable parameters: 'recall last N events of type T for user Y.'" The Final Office Action points to

paragraph 0059 of Linden in connection with this feature. Final Office Action at page 9, first full paragraph. The referenced paragraph, however, does not disclose any particular form of query executed by an event server, much less a query of the particular form described in the claim.

Dependent claim 64

The rejection of claim 64 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 64: "the event history server is configured to store event objects for at least the following types of events: mouse click events, mouse over events, and impression events, each event object being specific to a particular event and being separately retrievable via the query interface." The Final Office Action points to paragraph 0017 of Linden in connection with this feature. Final Office Action at page 11, second paragraph. The referenced paragraph, however, does not disclose the storage of event objects for the types of events described in the claim, particularly where each event object is "specific to a particular event and [is] separately retrievable via the query interface." The Final Office Action does not address this deficiency in the cited art.

Dependent claim 66

The rejection of claim 66 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 66: "the event history server is capable of responding to a query that specifies a particular type of display element and event type by identifying, and returning event data for, particular events that correspond to the specified type of display element and event type." The Final Office Action points to paragraphs 0068, 0073 and 0074 of Marshall in connection with this feature. Final Office Action at page 11, last two paragraphs. The referenced paragraphs, however, contain no disclosure whatsoever regarding the identification of particular events that correspond to a particular type of display element and event type specified in a query. Thus, the referenced portions of Marshall do not support the rejection.

In connection with this claim, the Final Office Action also asserts that "the use and advantage of submitting a query identifying particular events and matching the criteria from said query is well-known." However, even if, *arguendo*, this assertion is accurate, it does not follow that the feature described in claim 66 would have been obvious in the context of the system of claim 1.

Independent Claim 55

Claim 55 reads as follows:

55.   A method performed by a web site system, said web site system including a web server system that is responsive to requests from users by generating and returning web pages, said web server system including one or more applications that generate personalized content for recognized users based on browse histories of such users, the method comprising:

reporting event data from the web server system to an event history server, said event data descriptive of events that occur during browsing sessions of each of a plurality of users of the web server system;

storing the event data on the event history server substantially as the corresponding events are reported to the event history server by the web server system, and making such event data available in real time to the one or more applications to facilitate personalization of web pages for the users;

with the one or more applications, retrieving, from the event history server, the event data associated with particular users, wherein the one or more applications retrieve the event data at least by event type and event time of occurrence via a query interface of the event history server, wherein the event history server responds to a query submitted by an application via said query interface by identifying particular events that match event criteria included in said query, and by returning the event data for said particular events; and

with the web server system, using the event data retrieved by the one or more applications via said query interface to generate personalized web pages for transmission to users.

The rejection of claim 55 is improper because, among other reasons, Linden and Marshall do not collectively teach or render obvious the following feature: "the one or more applications retrieve the event data at least by event type and event time of occurrence via a query interface of the event history server."

The Final Office Action points to paragraphs 0105, 0123, 0127, 0138 and 0139 of Linden in connection with this aspect of claim 55. Final Office Action at page 3, second full paragraph. The referenced portions of Linden describe processes in which the purchase histories of customers (paragraph 0105), or the query log records of customers (paragraphs 0123, 0127, 0138 and 0139), are retrieved for off-line analysis. The purpose of this analysis is to detect purchase-based or item-viewing-based relationships or "similarities" between particular items.   Each retrieved purchase history is "in the general form of the user ID of a customer together with a list

of the product IDs (ISBNs, etc.) of the items (books, CDs, videos, etc.) purchased by that customer." Linden at ¶ 0105. Each retrieved query log record is "in the general form of a browsing session identification together with a list of the identifiers of the items viewed in that browsing session." Linden at ¶ 0127.

Nowhere does Linden suggest that this retrieval of customer purchase histories or query log records involves "one or more applications retriev[ing] the event data at least by event type and event time of occurrence via a query interface of the event history server" as claimed. In this regard, the referenced portions of Linden merely disclose the retrieval of entire purchase histories, and entire query log records, of the customers. Thus, although the retrieved purchase histories and query log records may include event data, nothing in Linden suggests that this event data is retrieved "at least by event type and event time of occurrence via a query interface of the event history server" as claimed. Indeed, Linden never suggests that the event data is stored in a format that would even permit such a mode of retrieval.

The rejection of claim 55 is also improper because Linden and Marshall do not collectively teach or render obvious an event history server that "responds to a query submitted by an application via said query interface by identifying particular events that match event criteria included in said query, and by returning the event data for said particular events." The Final Office Action acknowledges that this feature is missing from Linden, but asserts that the addition of this feature would have been obvious in view of the disclosure at paragraphs 0068, 0073 and 0074 of Marshall. Final Office Action at page 3, last line to page 5, line 7. Marshall, however, does not disclose or suggest an event history server that "responds to a query <u>submitted by an application</u> via said query interface <u>by identifying particular events that match event criteria included in said query</u>, and by returning the event data for said particular events." In this regard, the "query" mentioned in paragraph 0068 of Marshall is a search query submitted by a user, and not a "query submitted by an application" as claimed. In addition, the user-submitted search query in Marshall is apparently a keyword search for information about a health condition, and its execution does not involve "identifying particular <u>events</u> that match <u>event criteria included in said query</u>" as claimed. Thus, the referenced portions of Marshall do not support the rejection.

The rejection of claim 55 is also improper because the Final Office Action does not identify any particular *reason* that would have prompted one of ordinary skill and creativity to modify the cited art to arrive at the claimed invention. See *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1731 (stating that "it can be important to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does."). In connection with this issue, the Final Office Action merely states that the addition of Marshall's query submission feature to Linden would have been obvious "in order that patient information can be retrieved." Final Office Action at page 4, lines 8-11. Linden, however, does not relate to the storage of patient information. In addition, nothing in the record suggests that Linden's system would benefit in any way from the ability to retrieve patient information. Thus, the Final Office Action does not identify a reason for combining Linden and Marshall.

In the Advisory Action dated September 17, 2008, the Examiner appears to treat the browsing sessions of Linden as the "events" described in claim 55. For example, the Advisory action treats the "current session" described in Linden as the "event type" of claim 55. Appellants respectfully submit that this construction is improper in view the claim's recitation of "events that occur during browsing sessions." This language makes clear that the recited events cannot be the browsing sessions themselves.

For at least these reasons, the Final Office Action does not establish a prima facie case of obviousness with respect to claim 55, and the rejection of claim 55 should be reversed.

Dependent claims 56-63

Claims 56-63 each depend directly or indirectly from claim 55. Thus, the rejections of these dependent claims should be reversed for the reasons explained above in connection with claim 55. Additional reasons for reversing the rejections of these dependent claims are set forth below for specific dependent claims. By declining to present separate arguments in favor of certain dependent claims, Appellants do not imply an agreement with the Examiner's assertions regarding such claims.

Dependent claim 56

The rejection of claim 56 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 56: "wherein storing the event data on the event history server comprises storing a separate event object for each of a

plurality of user selection actions performed by a user during a browsing session, each event object being separately retrievable via said query interface." The Final Office Action points to paragraphs 0068, 0073 and 0074 of Marshall in connection with this feature. Final Office Action at page 9, last two paragraphs. The referenced paragraphs, however, do not teach or suggest the storage of "a separate event object for each of a plurality of user selection actions performed by a user during a browsing session" where each event object "is separately retrievable via said query interface."

In connection with this claim, the Final Office Action also asserts that "the use and advantage of submitting a query identifying particular events and matching the criteria from said query is well-known." However, even if, *arguendo*, this assertion is accurate, it does not follow that the feature described in claim 56 would have been obvious in the context of the method of claim 55.

Dependent claim 57

The rejection of claim 57, which depends from claim 56, is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 57: "each event object comprises event data specifying at least an event type, an event value, and an event time of occurrence." The Final Office Action points to paragraph 0105 of Linden in connection with this feature. Final Office Action at page 10, first paragraph. The referenced paragraph, however, contains no disclosure or suggestion of an event object that "comprises event data specifying at least an event type, an event value, and an event time of occurrence" as claimed.

Dependent claim 59

The rejection of claim 59 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 59: "storing event objects for at least the following types of events: mouse click events, mouse-over events, and impression events, each event object being specific to a particular event and being separately retrievable via the query interface." The Final Office Action points to paragraph 0017 of Linden in connection with this feature. Final Office Action at page 10, third paragraph. The referenced paragraph, however, contains no disclosure or suggestion of storing event objects as claimed where each event object is "specific to a particular event" and is "separately retrievable via the

query interface." The Final Office Action does not acknowledge or address this deficiency in the cited art.

<div align="center">Dependent claim 62</div>

The rejection of claim 62 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 62: "wherein retrieving the event data from the event history server via said query interface comprises submitting a query of the form 'has User X accessed URL Y?'" The Final Office Action points to paragraph 0138 of Linden in connection with this feature. Final Office Action at page 10, last paragraph. The referenced paragraph, however, does not disclose any particular form of query, much less a query of the form "has User X accessed URL Y?" Thus, the referenced portion of Linden does not support the rejection.

<div align="center">Dependent claim 63</div>

The rejection of claim 63 is additionally improper because Linden and Marshall do not collectively teach or render obvious the following feature recited in claim 63: "wherein retrieving the event data from the event history server via said query interface comprises submitting a query of the form 'when has User X accessed URL Y?'" The Final Office Action points to paragraph 0138 of Linden in connection with this feature. Final Office Action at page 11, first paragraph. The referenced paragraph, however, does not disclose any particular form of query, much less a query of the form "when has User X accessed URL Y?" Thus, the referenced portion of Linden does not support the rejection.

VIII.   CONCLUSION

For the reasons explained above, Appellants respectfully submit that the rejections of Claims 1-13 and 46-66 are improper, and request that the rejections be reversed.

Please charge any additional fees that may be required now or in the future to Deposit Account No. 11-1410.

Respectfully submitted,

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CLAIMS APPENDIX

1.   A web site system, comprising:

a web server system that is responsive to requests from online users by generating and returning web pages, wherein the web server system includes one or more applications that generate personalized content for recognized users based on browse histories of such users; and

an event history server that persistently stores event data descriptive of events that occur during browsing sessions of each of a plurality of users of the web server system, wherein the event history server stores the event data substantially as corresponding events are reported to the event history server by the web server system, and makes such event data available in real time to the one or more applications to facilitate personalization of web pages for the users;

wherein the event history server implements a query interface through which the one or more applications retrieve the event data associated with particular users at least by event type and event time of occurrence, and the event history server is capable of responding to a query submitted by an application via said query interface by identifying particular events that match event criteria included in said query, and by returning the event data for said particular events;

and wherein the web server system uses the event data retrieved by the one or more applications via said query interface to generate personalized web pages for transmission to users.

2.   The web site system of Claim 1, wherein the event history server records the event data for a given event as an event object that includes at least the following: an event type identifier, an event value, and a time stamp, each event object being separately retrievable via said query interface.

3.   The web site system of Claim 1, wherein the event history server includes at least one storage layer server that stores the event data persistently by user ID, and further includes at least one cache layer server that caches event data of online users.

4.   The web site system of Claim 3, wherein the cache layer server is configured to collect event data of an unrecognized user during a browsing session, and to pass such collected event data to the at least one storage layer server for persistent storage thereof if the unrecognized user becomes recognized during the browsing session.

5.   The web site system of Claim 1, wherein the event history server comprises a plurality of cache layer servers, each of which is assigned to a different respective set of browse session IDs such that a given user remains assigned to a particular cache layer server throughout a browse session.

6.   The web site system of Claim 1, wherein the event history server comprises a plurality of mirrored storage layer servers that persistently store like event data by user ID.

7.   The web site system of Claim 1, wherein the query interface of the event history server supports queries of the form "has User X accessed URL Y?"

8.   The web site system of Claim 1, wherein the query interface of the event history server supports queries of the form "when has User X accessed URL Y?"

9.   The web site system of Claim 1, wherein the event history server records event data for substantially every mouse click action of every recognized user of a corresponding web site.

10.   The web site system of Claim 1, wherein the event history server records impression event data indicative of specific items presented to users on dynamically generated web pages.

11.   The web site system of Claim 1, wherein the at least one application includes a web search application that provides functionality for searching an index of web pages, and uses the event history server to identify and highlight web search result items that have previously been accessed by a user conducting a current search.

12.   The web site system of Claim 1, wherein the at least one application includes an application that provides functionality for users to interactively view and organize their respective browse history data as recorded by the event history server.

13.   The web site system of Claim 1, wherein the event history server generates user-specific Bloom filters reflective of event histories of specific users, and uses the user-specific Bloom filters to respond to queries from the at least one application.

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46. The web site system of Claim 1, wherein the web server system is responsive to a page request from a user during a browsing session by retrieving, from the event history server, event data descriptive of at least one event that has already occurred during the browsing session, and by using the event data descriptive of said at least one event to provide personalized content to the user.

47. The web site system of Claim 1, wherein the web server system reports the events directly to the event history server without use of a web log.

48. The web site system of Claim 1, wherein the query interface includes functionality for the one or more applications to additionally retrieve the event data based on types of user-selectable display elements associated with the events.

49. The web site system of Claim 1, wherein the event history server stores separate event objects for each of a plurality of respective events that occur during a user's browsing session, each event object being a separately retrievable entity that is retrievable via the query interface.

50. The web site system of Claim 49, wherein each event object includes an event type identifier indicating a type of an associated event.

51. The web site system of Claim 1, wherein the web server system comprises an event reporting component that runs on a web server machine and reports the events to the event history server over a network, said web server machine being separate from machines on which the one or more applications run.

52. The web site system of Claim 1, wherein the event history server stores the event data substantially as corresponding events occur.

53. The web site system of Claim 1, wherein the event history server additionally stores event data descriptive of events reported to the event history server by event reporting software that runs on user computers.

54. The web site system of Claim 1, wherein the event history server is capable of executing a query of the following form, where N, T and Y are variable parameters: "recall last N events of type T for user Y."

55.   A method performed by a web site system, said web site system including a web server system that is responsive to requests from users by generating and returning web pages, said web server system including one or more applications that generate personalized content for recognized users based on browse histories of such users, the method comprising:

reporting event data from the web server system to an event history server, said event data descriptive of events that occur during browsing sessions of each of a plurality of users of the web server system;

storing the event data on the event history server substantially as the corresponding events are reported to the event history server by the web server system, and making such event data available in real time to the one or more applications to facilitate personalization of web pages for the users;

with the one or more applications, retrieving, from the event history server, the event data associated with particular users, wherein the one or more applications retrieve the event data at least by event type and event time of occurrence via a query interface of the event history server, wherein the event history server responds to a query submitted by an application via said query interface by identifying particular events that match event criteria included in said query, and by returning the event data for said particular events; and

with the web server system, using the event data retrieved by the one or more applications via said query interface to generate personalized web pages for transmission to users.

56. The method of Claim 55, wherein storing the event data on the event history server comprises storing a separate event object for each of a plurality of user selection actions performed by a user during a browsing session, each event object being separately retrievable via said query interface.

57. The method of Claim 56, wherein each event object comprises event data specifying at least an event type, an event value, and an event time of occurrence.

58. The method of Claim 56, wherein each of the event objects comprises event data specifying a type of display element selected by the user.

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59. The method of Claim 55, wherein storing the event data on the event history server comprises storing event objects for at least the following types of events: mouse click events, mouse-over events, and impression events, each event object being specific to a particular event and being separately retrievable via the query interface.

60. The method of Claim 55, wherein retrieving the event data from the event history server via said query interface comprises submitting a query that specifies an event time range.

61. The method of Claim 55, wherein retrieving the event data from the event history server via said query interface comprises submitting a query that specifies a particular type of display element.

62. The method of Claim 55, wherein retrieving the event data from the event history server via said query interface comprises submitting a query of the form "has User X accessed URL Y?"

63. The method of Claim 55, wherein retrieving the event data from the event history server via said query interface comprises submitting a query of the form "when has User X accessed URL Y?"

64. The web site system of Claim 1, wherein the event history server is configured to store event objects for at least the following types of events: mouse click events, mouse over events, and impression events, each event object being specific to a particular event and being separately retrievable via the query interface.

65. The web site system of Claim 1, wherein the event history server is capable of responding to a query that specifies an event time range by identifying, and returning event data for, events that fall within the event time range.

66. The web site system of Claim 1, wherein the event history server is capable of responding to a query that specifies a particular type of display element and event type by identifying, and returning event data for, particular events that correspond to the specified type of display element and event type.

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<u>EVIDENCE APPENDIX</u>

None

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RELATED PROCEEDINGS APPENDIX

None